Washington State Department of Transportation

The Life Cycle of a Highway Construction Project

Initial Planning

Get a general idea of what needs to be done and about how much it will cost

- Review accident data
- Research traffic volumes
- Assess existing road conditions to identify deficiencies
- Develop potential engineering solutions
- Identify preliminary environmental impacts
- Evaluate cost of improvements
- Collect community comments
- Develop preliminary design alternatives
- Prioritize preliminary designs based on available funding

Securing Funding

Generate support and obtain project funding

- Community action elevates local transportation needs to legislative awareness level.
- WSDOT and local governments secure funding from state and federal sources through a competitive process based on safety, mobility, economic development and community support.

Project Design

Thoroughly evaluate the problem and engineer a detailed solution

- Access and right of way
- Accident analysis
- Bridges
- Construction traffic control
- Coordination with other agencies
- Cost estimate
- Environmental impacts
- Geology
- Highway geometry
- Highway speed
- Interchanges
- Intersections
- Lighting
- Maintenance impacts
- Pavement
- Pavement markings
- Pedestrian and bicycle facilities
- Safety
- Signing
- Slope stability
- Storm drainage
- Surface water
- Traffic barriers
- Traffic signal systems
- Traffic volumes
- Utilities

Environmental Compliance

Ensure that all environmental statutes and regulations are followed

- Assess the social, economic, and environmental impacts of the project
  - air quality
  - business, farmland, and residential areas
  - hazardous materials
  - historic, cultural, and archaeological areas
  - noise and visual conditions
  - plants and animals
  - services, energy, and utilities
  - water quality
- Coordinate with local, state, and federal resource agencies to develop an action plan that reduces or eliminates negative impacts
- Prepare and submit legal environmental documentation
- Obtain permits from resource agencies
- Environmental monitoring during construction

Public Hearings and Open Houses

Opportunities for WSDOT designers to present their ideas, answer questions, and listen to public input

- Access hearings
- Corridor hearings
- Environmental hearings
- Design hearings
- Informal open houses
- Informational town hall meetings
- General information gatherings
- Fair booth displays

Right of Way Acquisition

Determine project area needs and purchase property for new roadways

- Compile parcel and title information on impacted properties
- Prepare right of way plans
- Negotiate property acquisitions
- Compensate landowners for taking part of their land
- Arrange relocations
- Imminent domain condemnations

Contract Preparation

Prepare a detailed set of plans to tell the contractor what to build

- Create detailed plan sheets
- Write specifications
- Prepare a final estimate of quantities for materials, labor, etc.
- List the quantities and work operations
- Finalize traffic control plans
- Submit final contract for approval and processing
- Advertise contract for private contractors to bid on

Project Construction

Private Contractors bid for and build the project as designed by WSDOT

- Low bidder is awarded the contract
- WSDOT inspects the work
- Build bridges
- Pave the roadway
- Moving dirt
- Place signs
- Pavement marking
- Landscaping
- Drainage
- Lighting
- Traffic Signals

South Central Region